points inconsistent with the idea are overlooked ;—that, in short, in order to feel any confidence in the truth of any result worked out, it is necessary, at every step, to contend, as it were, against the evidence itself, and cautiously to seek out, not so much for that which will support, as for that which will militate against, the conclusion which it is thought may be established. And where the case is a disputed one, there is, philosophically considered, more weight to be attached to, and reliance to be placed upon, results in the statement of which it is admitted that there exist points of difficulty and doubt,—thus affording proof that such points have been sought and not avoided,—than to those the statement of which appears so smooth and clear and free from doubt and difficulty that he who runs may read. While therefore we must bestow the warmest meed of approbation on the elaborate attention which has obviously been given to the anatomical details contained in the present work, and which no one can examine without interest and instruction, we are bound to remind the seeker after truth that this is not all that has been said upon the subject, and therefore not all that can be said : and, if he would advance truth and true science, he is bound, before accepting the conclusions here put forth, to give every attention to what has been or may be said in support of any other views. He has here one view of the present subject most carefully, elaborately and clearly stated, and with every advantage which pictorial illustration can give. Cordially congratulating the scientific reader that the materials for discussion are thus before him in the most ample form, we must then repeat that they can only, at present, be regarded as *materials*, and that the question of the affinities of the Dodo cannot be regarded as settled and conclusively established until a careful comparison has been made between the facts urged in support of the conclusion set forth in this volume and those which have more especially attracted the attention of others, who, from an examination of the materials which exist for a determination of the question, have arrived at a different conclusion.

Outlines of Botany, Part 1. By W. Maten, M.D. London, H. Baillière. 1848.

This little work appears to have been drawn up as a substitute for the notes which industrious students make during their attendance on lectures. As such it may prove useful, but to those who have had no previous instruction it will be of little service. When we mention that it has been attempted to give an outline of the organography and physiology of plants in eighteen pages, and that all the more important organs and parts are alluded to, it will be comprehended that no great space could be afforded for explanations. On the whole the organography is tolerably clear, though in several points the author has adopted views now generally abandoned. Several of these cases we have marked for notice.

The description of the structure of stems is sufficiently vague, and the old doctrine of *endogenous* growth is still adhered to. No allu-

sion is made to the essential difference between the dicotyledons and monocotyledons arising from the union or independence of their component parts. The cambium regions of the fibro-vascular bundles of dicotyledons are blended into a ring beneath the bark, and in their growth are capable of forcing this outward and forming new layers of wood; the cambium regions of the isolated bundles of monocotyledons (which are not "dispersed confusedly") are buried in the substance of the general parenchyma, and only capable of development up to a certain point; consequently these latter cannot enlarge the diameter of the stem to any considerable extent, but merely render it more dense and compact.

In a note on morphology the author speaks of the ovules as developed from the margins of the carpellary leaves. The existence of a doubt at least, on this point, in regard to many cases, should have been indicated, considering the high names of the supporters of the opposite opinion.

The integuments of the seed are here said to consist of three layers, viz. "episperm, mesosperm, and endosperm," or in other terms, "testa, sarcosperm, and endopleura." Now the integuments of a seed are two: the testa formed from the primine, and the endopleura or *membrane interne* formed from the secundine. The word episperm is usually applied as a general term to include both coats; the word endosperm is applied to the albumen. Some indeed propose to call the albumen *episperm* when formed between the embryo-sac and the endopleura, and *endosperm* when formed within the embryo-sac, but no such term as sarcoderm is now recognised.

The physiology is treated rather obscurely. The old notion of the excretion of useless matters by the roots is taken for granted; and the respiration and digestion described as opposite processes, since respiration is regarded as an inhalation of oxygen with a liberation of carbonic acid, taking place in the dark, while growth or nutrition is said to "consist in varied combinations of oxygen, hydrogen, carbon and azote, got from the air and water," forming proximate principles, such as sugar, gum, starch, &c. If *nutrition*, especially so-called, consists in this, it is difficult to see what digestion and respiration are for.

The manner of growth of cells is summed up very briefly, being said to take place by the development of new ones from "certain germs or cytoblasts affixed to the wall of each." Such statements as these are worse than no account at all of such matters.

The second section is devoted to classification, and gives the Linnæan system with an analytical tribe of DeCandolle's Natural system; and four pages are devoted to the geography and medicinal properties of plants.

Seven plates accompany the text, not very artistic, but sufficiently clear for those who are satisfied with diagrams.